ATTACHMENT 1 ER Staff Reprots March 1999

Date: February 19, 1999

For: OKX Staff and Harvey Thurm MSD/ERH

Through: Michael Wyllie, MIC

From: Ingrid Amberger, Marine Program Leader

Subject: Results 1999 Marine Survey

I complied the results from the marine survey we conducted at the New York National Boat Show from January 2-10, 1999 and on our Web Site from December 10, 1998 through February 4, 1999. Around 90% of the surveys we received were usable. The other 10% were either from well outside our area and/or very poorly filled out.

The total number of usable surveys was 357: 239 from the boat show and 118 from the internet.

The surveys were slightly different. They contained 6 questions that were the same:

- 1) What NOAA Weather Radio transmitter do you listen to most?
- 2) What type of boater are you?
- 3) Where do you do most of your boating?
- 4) Currently, Small Craft Advisories, Gale Warnings and Storm Warnings are issued for sustained winds. Would it serve you better if they were issued for wind gusts?
- 5) Wind speeds in NWS Coastal Marine Forecasts are typically ACCURATELY or UNDER or OVER forecast.
- 6) Average wave heights in NWS Coastal Marine Forecasts are typically ACCURATELY or UNDER or OVER forecast.

On the internet survey only, we asked if they own a SAME NOAA Weather Radio. And on the boat show survey only, we asked if they used the internet to obtain weather data and if they had ever visited our web site.

This was a non-scientific survey and not all respondents answered all questions.

General Results:

Over 1/2 said they listen to our Rockefeller Center transmitter most, around 1/3 Riverhead L.I. and around 10% Meriden and/or Montville CT.

Ninety percent were recreational boaters with just over 1/2 being power boaters.

Fifty-eight percent of all the respondents said they do most of their boating either on Long Island Sound (34%) and in our nearshore waters (24%).

Two-thirds of all respondents said they would like to see us issue small craft advisories, gale warnings and storm warnings based on gusts. Respondents from the internet survey were more evenly split on this question with 57% for gusts and 43% for sustained winds. Looking even further at the internet results, respondents who boat on Long Island Sound were 50%/50%; for Great South Bay 42%/58% and for offshore 59%/41%. However, the nearshore respondents waters favored gusts 65%/35%. We will discuss this at an upcoming meeting.

Around 60% of all respondents claim we accurately forecast wind speed and wave height, around 25% said we under forecast and around 15% said we over forecast. The offshore respondents said we trend toward under-forecasting. It would have been nice if these results indicated more of an under-forecasting which would go along better with boaters desire to have us issue advisories and warnings for gusts.

The results of these surveys will be considered by our Operational and Policy teams.

We will likely run another marine survey (on the internet) in conjunction with National Safe Boating Week (May 22-28) and the beginning of the boating season.

<u>Detailed Results:</u>

Where do you do most of your boating?

	Total	Boat Show	Internet
% answered	94%	90%	100%
Long Island Sound	34%	29%	43%
Nearshore	24%	25%	22%
Offshore	18%	20%	14%
New York Harbor	10%	10%	10%
Great South Bay	8%	6%	11%
don't know*	6%	10%	0%

^{*}but listen to our transmitters

What NOAA Weather Radio transmitter do you listen to most?

	Total	Boat Show	Internet
% answered	95%	97%	91%
Rockefeller NY	54%	53%	53%
Riverhead NY	30%	28%	36%
Meriden CT	5%	6%	4%
Montville CT	3%	4%	2%
Multiple*	7%	8%	5%
Other	1%	1%	0%

^{*}Chose more than one transmitter

What type of boater are you?

	Total	Boat Show	Internet
% answered	99%	99%	97%
Recreational	90%	92%	86%
Commercial	10%	8%	13%
Windsurfer	<1%	0%	1%
Of Recreations	al:		
Sail	28%	21%	44%
Powerboat	57%	58%	53%
Didn't tell	15%	21%	3%

Currently, Small Craft Advisories, Gale Warnings and Storm Warnings are issued for sustained winds. Would it serve you better if they were issued for wind gusts?

	Total	Boat Show	Internet
% answered	96%	96%	97%
Yes	67%	72%	57%
No	33%	27%	43%
Both	<1%	1%	0%

Wind speeds in NWS Coastal Marine Forecasts are typically ACCURATELY or UNDER or OVER forecast.

	01.021. 01	0.22. 20200	20.
	Total	Boat Show	Internet
% answered	95%	93%	99%
Accurately	59%	60%	57%
Under	25%	26%	25%
Over	15%	13%	18%
Under/Over	1%	1%	0%

Average wave heights in NWS Coastal Marine Forecasts are typically ACCURATELY or UNDER or OVER forecast.

- 2			
	Total	Boat Show	Internet
% answered	94%	93%	98%
Accurately	63%	64%	61%
Under	23%	24%	21%
Over	14%	12%	18%
Under/Over	<1%	<1%	0%

Do you own a SAME NOAA Weather Radio? Internet Only!!!

% answered 98%
Yes 39%
No 61%

Do you use the internet to obtain weather data? Boat Show Only!!!

% answered 99%
Yes 55%
No 45%

Have you ever visited our web site? Boat Show Only!!!

% answered 79%
Yes 29%
No 71%

Even More Detailed Results:

What NOAA Weather Radio transmitter do you listen to most?

TONTO	TOT AND	COTTATE .
LONG	ISLAND	SOUND

	Total	Boat Show	Internet
% answered	99%	99%	100%
Rockefeller NY	50%	45%	58%
Riverhead NY	27%	25%	30%
Meriden CT	11%	13%	8%
Montville CT	4%	4%	4%
Multiple	7%	12%	0%
Other	1%	1%	

NEARSHORE:

	Total	Boat Show	Internet
% answered	97%	97%	96%
Rockefeller NY	52%	55%	44%
Riverhead NY	34%	33%	36%
Meriden CT	2%	3%	0%
Montville CT	0%	0%	0%
Multiple	11%	7%	20%
Other	1%	2%	0%

OFFSHORE:

	Total	Boat Show	Internet
% answered	94%	92%	100%
Rockefeller NY	46%	48%	41%
Riverhead NY	36%	27%	59%
Meriden CT	3%	5%	0%
Montville CT	8%	11%	0%
Multiple	7%	9%	0%

NEW YORK HARBOR, RARITAN & SANDY HOOK BAYS, LOWER HUDSON RIVER:

	Total	Boat Show	Internet
% answered	100%	100%	100%
Rockefeller NY	86%	100%	58%
Riverhead NY	11%	0%	34%
Multiple	3%	0%	8%

GREAT SOUTH BAY, PECONIC BAY, ETC:

	Total	Boat Show	Internet
% answered	100%	100%	100%
Rockefeller NY	26%	29%	23%
Riverhead NY	74%	71%	77%

What type of boater are you?

LONG	ISLAND	CUIIID.
TOMO	TOTAMD	POUND.

	Total	Boat Show	Internet
% answered	100%	100%	100%
Recreational	93%	96%	88%
Commercial	7%	4%	12%
Of Recreationa	1:		
Sail	46%	39%	57%
Powerboat	45%	48%	41%
Didn't tell	9%	13%	2%

NEARSHORE:

	Total	Boat Show	Internet
% answered	100%	100%	100%
Recreational	90%	93%	81%
Commercial	10%	7%	19%
Of Recreational	L:		
Sail	14%	7%	33%
Powerboat	64%	63%	67%
Didn't tell	22%	30%	0%

OFFSHORE:

	Total	Boat Show	Internet
% answered	99%	98%	100%
Recreational	81%	83%	77%
Commercial	19%	17%	23%
Of Recreations	al:		
Sail	14%	8%	31%
Powerboat	75%	77%	69%
Didn't tell	11%	15%	0%

NEW YORK HARBOR, RARITAN & SANDY HOOK BAYS, LOWER HUDSON RIVER:

Tota]	Boat	Show	Internet
% answered	100%	100%	100%
Recreational	92%	88%	100%
Commercial	8%	12%	0%
Of Recreational	L:		
Sail	30%	24%	42%
Powerboat	42%	38%	50%
Didn't tell	28%	38%	8%

GREAT SOUTH BA	Y, PECONIC	BAY, ETC:	
	Total	Boat Show	Internet
% answered	89%	100%	83%
Recreational	96%	100%	90%
Commercial	4%	0%	10%
Of Recreationa	1:		
Sail	22%	14%	33%
Powerboat	61%	65%	56%
Didn't tell	17%	21%	11%

Currently, Small Craft Advisories, Gale Warnings and Storm Warnings are issued for sustained winds. Would it serve you better if they were issued for wind gusts?

HOMO TOTAMO	DOOND		
	Total	Boat Show	Internet
% answered	97%	97%	96%
Yes	63%	72%	50%
No	37%	28%	50%
NEARSHORE:			
	Total	Boat Show	Internet
		0.00	1 0 0 0
% answered	99%	98%	100%
<pre>% answered Yes</pre>	99% 75%	98% 80%	100% 65%
Yes	75%	80%	65%
Yes No	75% 24%	80% 19%	65% 35%

OFFSHORE:

	Total	Boat Show	Internet
% answered	100%	100%	100%
Yes	65%	67%	59%
No	35%	33%	41%

NEW YORK HARBOR, RARITAN & SANDY HOOK BAYS, LOWER HUDSON RIVER:

			o.	
	Total	Boat	Show	Internet
% answered	d 94%		96%	92%
Yes	65%		57%	82%
No	32%		39%	18%
Both	3%		4%	0%

GREAT SOUTH BAY, PECONIC BAY, ETC:

	Total	Boat Show	Internet
% answered	96%	100%	92%
Yes	54%	64%	42%
No	46%	36%	58%

Wind speeds in NWS Coastal Marine Forecasts are typically ACCURATELY or UNDER or OVER forecast.

LONG I	SLAND	SOUND:
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	Total	Boat Show	Internet	
% answered	94%	91%	98%	
Accurately	58%	63%	53%	
Under	21%	17%	24%	
Over	21%	20%	23%	

NEARSHORE:

	Total	Boat Show	at Show Internet	
% answered	91%	87%	100%	
Accurately	64%	58%	77%	
Under	23%	30%	8%	
Over	13%	12%	15%	

OFFSHORE:

	Total	Boat Show	Internet
% answered	99%	98%	100%
Accurately	48%	49%	47%
Under	39%	39%	41%
Over	8%	6%	12%
Under/Over	5%	6%	0%

NEW YORK HARBOR, RARITAN & SANDY HOOK BAYS, LOWER HUDSON RIVER:

Total		Boat Show	Internet	
% answered	97%	96%	100%	
Accurately	60%	61%	58%	
Under	31%	30%	34%	
Over	9%	9%	8%	

GREAT SOUTH BAY, PECONIC BAY, ETC:

	Total	Boat Show	Internet
% answered	100%	100%	100%
Accurately	67%	86%	64%
Under	15%	0%	31%
Over	18%	14%	23%

Average wave htypically ACLONG ISLAND SO	CURATELY				asts are recast.	
	Total	Boat	Show	Internet		
% answered	95%	91%		100%		
Accurately	63%	62%		64%		
Under	18%	19%		16%		
Over	19%	19%		20%		
NEARSHORE:						
	Total	Boat	Show	Internet		
% answered	92%	888		100%		
Accurately	68%	72%		62%		
Under	18%	15%		23%		
Over	14%	13%		15%		
OFFSHORE:						
	Total	Boat	Show	Internet		
% answered	97%	98%		94%		
-	49%	51%		44%		
Under	41%	43%		37%		
Over	8%	4%		19%		
Under/Over	2%	2%		0%		
NEW YORK HARBO	-				R HUDSON	RIVER:
		Show	Inte	ernet		
% answered		88%		100%		
Accurately		62%		66%		
	27%	33%		17%		
Over	9%	5%		17%		
GREAT SOUTH BA	Y, PECONIC	BAY,	ETC:			

COMMENTS:

Under

Over

% answered

Accurately

From Boat Show:

ÿ Forecasts need to be updated more often.

Total Boat Show

100%

86%

7%

7%

Internet

85%

64%

18%

18%

- ÿ Update radio reports more frequently on thunderstorm warning days.
- ÿ Need Hudson River data.

93%

76%

12%

12%

ÿ Do not let Congress cut the budget like they did to the

Coast Guard.

ÿ Great job!

From Internet Long Island Sound Respondents:

- ÿ I think you guys do a terrific job and I am always tuned in. I especially enjoy the broadcast because it is a real voice.
- ÿ These reports have proven to be the best source of up-to-date marine weather predictions. Thank you for the great service.
- ÿ It would be nice if you could transmit a message over the weather radio when loran stations are down.
- ÿ I depend on NWS daily. Generally accurate. Keep up the good work.
- ÿ Weather forecasts should be updated more frequently.
- ÿ Forecasting has improved greatly over the years. Hope it continues to improve especially hurricanes.
- ÿ Since western Long Island is subject to different conditions than your general forecast, I suggest a weather buoy or automated station in the area (perhaps at Execution Rocks).
- ÿ We never count on NOAA for tactical planning for regattas. It just isn't precise enough for racing. Good for general overview. Local knowledge is always best.
- ÿ More focus on developing sea breezes during the summer would be helpful. More station reporting in the marine forecast.
- ÿ Especially during the strong nor'easters the wind speed are usually very under forecasted, however with winds of the south and southwest during the summer are normally over forecasted.
- ÿ I think you folks do a good job.
- ÿ More precise timing on wind shifts. The discussions you put out are helpful in this regard.

From Internet Nearshore Respondents:

- ÿ I hear you are gong to a computerized reporting system. I do not find it as effective to listen to. I will miss the human voices tremendously.
- ÿ I do not feel your forecast are very accurate.
- ÿ Updating your forecasts more frequently would be helpful.
- ÿ I found that the wave height forecasts are generally inaccurate in shallow coastal waters.
- ÿ Need to report wind and sea conditions in eastern Long Island Sound and the south shore at more locations.
- ÿ All in all NOAA is an extremely accurate and handy weather system you can rely on.
- ÿ I would like to see the forecasts updated hourly during times when small craft or higher advisories are necessary. You do a good job. Keep it up.

- ÿ All in all an excellent service. Some inaccuracies in winds speeds and wave heights. I still think highly of it.
- ÿ Good job and really appreciate your efforts.
- ÿ You provide a valuable service to us in the marine community. I would find it most helpful if you could provide us with updated radar reports over the NOAA weather radio every half hour whenever thunderstorms are threatening to move over the coastal waters. Also we could use more marine observation from local Coast Guard stations.

From Internet Offshore Respondents:

- ÿ The area buoys provide the best real time data with wave periods and heights.
- ÿ A buoy like the HOTEL buoy moved into the Continental Shelf would help.
- ÿ Wind speed and direction are terrible. It might help to note the degrees the winds is coming from.
- ÿ A real time wind and wave buoy in Long Island Sound would be very helpful.
- ÿ Need more buoy reports along the coast. We rely on the buoy data to forecast accurate weather conditions.
- ÿ If we listen to your forecast we lose boating days that turn out good. We have found you err on the side of safety to
- ÿ Longer range day marine forecast would be helpful.
- ÿ The forecast have been very in accurate over the past year.
- ÿ Small Craft or gale warnings for our purposes (commercial boater) are more useful based on sustained winds which give a better indiction of expected conditions offshore. However, some sort of warnings based on guts would be very useful for the sailing public.

From Internet New York Harbor Group of Respondents:

- ÿ Need more updated forecasts. Sooner like every hour.
- ÿ More specific forecasts for our locality would be helpful.
- ÿ Good job and really appreciate your efforts.

From Internet Great South Bay Group of Respondents:

- ÿ Update more often.
- ÿ I would like to hear swell directions and significant wave direction (surfer).
- ÿ Forecasts have been improving in accuracy over the last few years.
- ÿ I think that the size of the forecast region is too large and does not capture local conditions. I would like to have a forecast that is more specific to Long Island south shore.